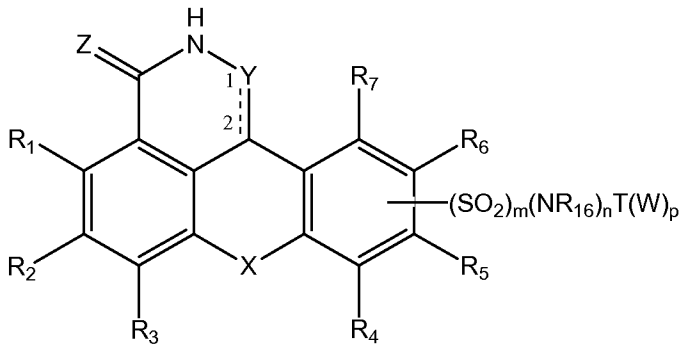
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A compound of Formula I:



(I)

or a pharmaceutically acceptable salt, hydrate, ~~prodrug~~, or mixtures thereof, wherein:

m is zero or one;

n is zero or one;

p is one or two;

Y is a direct bond, ~~>C=O, –O–~~, -N(R_{10})-, or N, ~~or –C(R_8)$_p$-~~;

Z is O, or S;

X is NR_{11}, -O-, -S-, $CR_{12}R_{13}$, a bond, -CR_{12}=CR_{13}-, or

-C($R_{12}R_{13}$)C($R_{14}R_{15}$)-;

W is selected from -CN, -($N(R_9)_2$) where the R_9 substituents may be combined to form a heteroaryl or cycloalkyl optionally containing at least one hetero atom, -$P(O)_2$-OR_9, -$P(O)(OR_9)_2$, -$S(O)_2$-R_9, -$S(O)_3R_9$, -C(O)-R_9, -C(O)-$N(R_9)_2$, -$S(O)_2NR_9$, cycloalkyl optionally containing at least one heteroatom, and heteroaryl;

R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_{12}, R_{13}, R_{14}, and R_{15} are independently: hydrogen, lower alkyl, cycloalkyl optionally containing at least one heteroatom, lower alkenyl, lower alkoxy, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, hydroxy, amino, nitro, halo, nitroso, sulfo, sulfonic acid or carboxy;

each R_9 is independently: hydrogen, lower alkyl, cycloalkyl optionally containing at least one heteroatom, lower alkenyl, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, ~~heteroaralkyl,~~ hydroxy, ~~lower alcohol~~ hydroxy-lower alkyl, alkoxy, amino, or carboxy;

R_{10} and R_{11} are independently: hydrogen, lower alkyl, lower alkenyl, aryl, aralkyl, alkaryl, halo, hydroxy, alkoxy, amino, or carboxy;

each R_{16} is independently hydrogen or lower alkyl; and

T~~, when present,~~ is a bond or a divalent or trivalent organic radical independently selected from the group consisting of: lower alkylene, lower alkenylene, arylene, aralkylene, and alkarylene;

wherein one, two or three of the hydrogen atoms of said divalent or trivalent organic radical can be substituted by a moiety selected from the group consisting of: lower (C_1-C_9 straight or branched chain) alkyl, cycloalkyl, lower (C_2-C_9 straight or branched chain) alkenyl, cycloalkenyl, aryl, heteroaryl, aralkyl, heteroaryalkyl, alkaryl, alkheteroaryl, halo, trifluoromethyl, hydroxy, lower (C_1-C_4) alkoxy, amino, nitro, trifluoromethyl, alkenyloxy, phenoxy, and benzyloxy;

wherein one, two, or three carbon atoms in the divalent or trivalent organic radical can be replaced by a hetero-atom-containing-moiety selected from the group consisting of: phenoxy, phenoxymethyl, phenoxycarbonyl, benzyloxy, -O-, >C=O, -S-, --SO_2-, -NR_1SO_2-, -SO_2NR_1-, -NR_1-, and -PO_2-;

wherein any of the lower (C_1-C_9 straight or branched chain) alkyl, C_3-C_8 cycloalkyl optionally containing at least one heteroatom in place of a carbon atom, lower (C_2-C_9 straight or branched chain) alkenyl, aryl, heteroaryl, aralkyl, and alkaryl groups can be independently substituted with one, two or three substituents selected from the group consisting of: lower (C_1-C_9 straight or branched chain) alkyl, C_3-C_8 cycloalkyl optionally containing at least one heteroatom in place of a carbon atom, lower (C_2-C_9 straight or branched chain) alkenyl, cycloalkenyl, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, halo, trifluoromethyl, hydroxy, lower (C_1-C_4) alkoxy, carboxy, carbonyl, lower alkyl ester, amino, nitro, trifluoromethyl, alkenyloxy, phenoxy, benzyloxy,

wherein one, two, or three carbon atoms of any of the lower (C_1-C_9 straight or branched chain) alkyl, C_3-C_8 cycloalkyl optionally containing at least one heteroatom in place of a carbon

atom, lower (C_2-C_9 straight or branched chain) alkenyl, aryl, heteroaryl, aralkyl, and alkaryl groups can be replaced by a hetero-atom-containing-moiety selected from the group consisting of: -O-, >C=O, -S-, $-SO_2-$, $-NR_1SO_2-$, $-SO_2NR_1-$, N, $-NR_1-$, and $-PO_2-$.

2. (Original) A compound of claim 1 wherein m and n are zero, p is one, W is -CN and R_1-R_7 are hydrogen.

3. (Original) A compound of claim 1, wherein m and n are zero, p is one, W is -CN, T is $-CH_2-$, Z and X are oxygen, Y is N and R_1 to R_7 are hydrogen.

4. (Currently Amended) A compound of claim 1, wherein ~~wherein~~ p is one and W is $-(N(R_9)_2)$.

5. (Cancelled)

6. (Original) A compound of claim 1 wherein p is one and W is selected from the group consisting of $-P(O)_2-OR_9$ and $-P(O)(OR_9)_2$.

7. (Cancelled)

8. (Original) A compound of claim 1 wherein p is one and W is selected from the group consisting of $-S(O)_2-R_9$, $-S(O)_2OR_9$ and $-S(O)_2NR_9$.

9. (Cancelled)

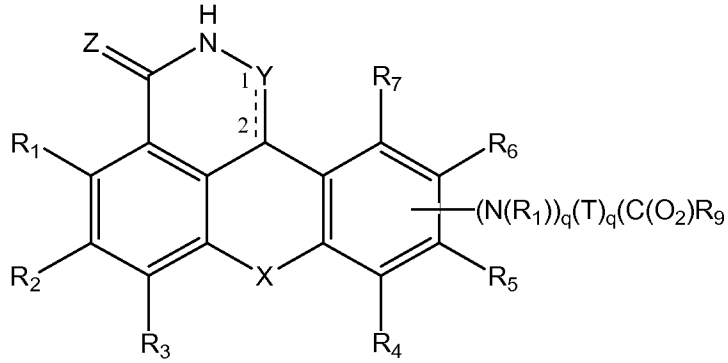
10. (Original) A compound of claim 1 wherein p is one and W is $-C(O)R_9$ or $-C(O)N(R_9)_2$.

11. (Cancelled)

12. (Original) compound of claim 1 wherein p is one and W is a heteroaryl or a cycloalkyl optionally containing at least one heteroatom.

13. (Cancelled)

14. (Currently Amended) A compound of Formula (II)



(II)

or a pharmaceutically acceptable salt, hydrate, ~~prodrug,~~ or mixtures thereof, wherein:

q is ~~zero or~~ one;

Y is N~~, -CH- or -CH$_2$~~;

Z is O;

X is -O-, or a bond;

R_1, R_2, R_3, R_4, R_5, R_6, and R_7 are independently: hydrogen, lower alkyl, lower alkenyl, cyloalkyl optionally containing at least one heteroatom, lower alkoxy, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroarly, hydroxy, amino, nitro, halo, nitroso, or carboxy;

R_9 is hydrogen, lower alkyl, cycloalkyl optionally containing at least one heteroatom, lower alkenyl, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, hydroxy, alkoxy, amino, or carboxy; and

T~~, when present,~~ is a divalent or trivalent organic radical independently selected from the group consisting of: lower alkylene, lower alkenylene, arylene, aralkylene, and alkarylene,

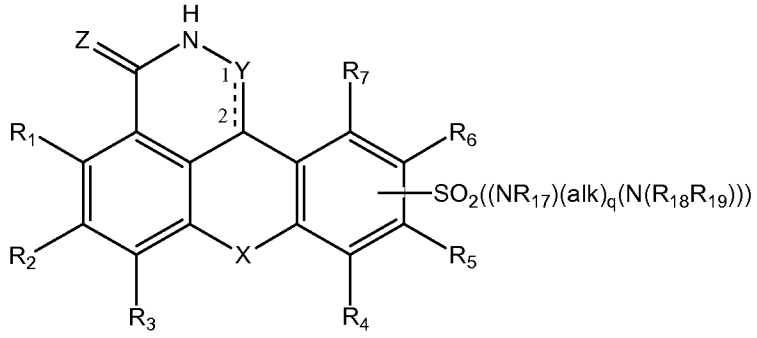
wherein one, two or three of the hydrogen atoms of said divalent or trivalent organic radical can be substituted by a moiety selected from the group consisting of: lower alkyl, lower alkenyl, aryl, aralkyl, alkaryl, halo, trifluoromethyl, hydroxy, alkoxy, amino, nitro, trifluoromethyl, alkenyloxy, phenoxy, and benzyloxy;

wherein one, two, or three carbon atoms in the divalent or trivalent organic radical can be replaced by a hetero-atom-containing-moiety selected from the group consisting of: penoxy, phenoxycarbonyl, benzyloxy, -O-, >C=O, -S-, $-SO_2-$, $-NR_1SO_2-$, $-SO_2NR_1-$, $-NR_1-$, and $-PO_2-$;

wherein the lower alkyl, cyloalkyl optionally containing at least one heteroatom, lower alkenyl, aryl, heteroaryl, aralkyl, heteroaraalkyl, alkaryl, and alkheteroaryl groups can be independently substituted with one, two or three substituents selected from the group consisting of: lower alkyl, cycolalkyl optionally containing at least one heteratom, lower alkenyl, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, halo, trifluoromethyl, hydroxy, alkoxy, carboxy, carbonyl, lower alkyl ester, amino, nitro, trifluoromethyl, alkenyloxy, phenoxy, benzyloxy,

wherein one, two, or three carbon atoms ~~thereof~~ of the one, two or three substituents selected from the group consisting of: lower alkyl, cycolalkyl optionally containing at least one heteratom, lower alkenyl, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, halo, trifluoromethyl, hydroxy, alkoxy, carboxy, carbonyl, lower alkyl ester, amino, nitro, trifluoromethyl, alkenyloxy, phenoxy, benzyloxy can be replaced by a hetero-atom-containing-moiety selected from the group consisting of: -O-, >C=O, -S-, $-SO_2-$, $-NR_1SO_2-$, $-SO_2NR_1-$, $-NR_1-$, $-NR_1-$, and $-PO_2-$.

15. (Currently Amended) A compound according to Formula (III)



(III)

wherein

Z and X are oxygen;

Y is N, ~~-CH- or -CH_2~~;

q is zero or one;

"alk" is lower alkylene;

R_{17}, R_{18} and R_{19} are independently hydrogen or lower alkyl; or

R_{17} and R_{18} or R_{18} and R_{19} taken together can be a lower alkylene to form a heterocyclic ring; and

R_1, R_2, R_3, R_4, R_5, R_6, and R_7 are independently: hydrogen, lower alkyl, cycloalkyl optionally containing at least one hetero atom, lower alkenyl, lower alkoxy, aryl, heteroaryl, aralkyl, heteroaralkyl, alkaryl, alkheteroaryl, hydroxy, amino, nitro, halo, nitroso, or carboxy.

16. (Original) A pharmaceutical composition which comprises; (i) a therapeutically effective amount of a compound according to claim 1 and (ii) a pharmaceutically acceptable carrier.

17. (Original) The pharmaceutical composition of claim 16, wherein the carrier is a sterile solution, suspension or emulsion, in a single or divided dose.

18. (Original) The pharmaceutical composition of claim 16, wherein the carrier is a capsule or tablet containing a single or divided dose of said compound.

19. (Original) The pharmaceutical composition of claim 16, wherein the carrier comprises a biodegradable polymer.

20. (Original) The pharmaceutical composition of claim 19, wherein the biodegradable polymer releases the compound of formula I over a prolonged period of time.

21. (Original) The pharmaceutical composition of claim 16, wherein the carrier is a solid implant.

22-35. (Cancelled)

36. (Currently Amended) A method of inhibiting PARP activity, ~~treating or preventing diseases or disorders,~~ treating neural tissue damage resulting from ischemia and reperfusion injury, or altering gene expression, ~~or radiosensitizing~~, comprising: administering a therapeutically effective amount of a compound of claim 1.

37. (Original) The method of claim 36, wherein the compound is administered as a sterile solution, suspension or emulsion, in a single or divided dose.

38. (Original) The method of claim 36, wherein the compound is administered as a capsule or tablet containing a single or divided dose of said compound.

39. (Original) The method of claim 36, wherein the compound is administered with a biodegradable polymer.

40. (Original) The method of claim 39, wherein the biodegradable polymer releases the compound of formula I over a prolonged period of time.

41. (Original) The method of claim 36, wherein the compound is administered with a solid implant.

42-54. (Cancelled)

55. (New) A method of treating cardiac tissue damage resulting from ischemia and reperfusion injury comprising administering a therapeutically effective amount of a compound of claim 1.